

SOURCES OF MEMORIAL ORNAMENTATION

BY

HENRY POWELL HOPKINS, A.M., B.Arch., A.I.A.



Published by

VERMONT MARBLE COMPANY
PROCTOR, VERMONT

FOREWORD



HIS brief outline of ornamentation as related to memorial design has been written under the encouragement of Capt. E. R. Morse of the Vermont Marble Company and in the belief that there is need for a simple and practical presentation of the subject. It is mainly for the memorial craftsman and his salesmen that this work is produced and it is the writer's desire to make some contribution, if possible, to a better knowledge of memorial ornamentation in the retail selling field. Correct ornament invariably has an historic derivation which can be traced and which gains meaning if its origin and the structural or artistic reasons for its use are understood.

In recent years there has been a general improvement in public appreciation of art. This comes in part from the increase in wealth, with resulting leisure and opportunity for travel, and in part from our increased commercial activity and exchanges with other nations. The American of today makes his purchases with a keener appreciation of true beauty and good design than he did in years past. In every line of industry dealers and their salesmen are feeling the need of a more thorough knowledge of correct design as part of their selling equipment.

It is the purpose of this book to illustrate and briefly explain a few of the styles of ornament which may be practically applied in the field of memorial design. Several historic styles which are adapted to this purpose have been omitted, as well as the general subject of design involving scale, proportion, contour and other problems. It is hoped that the illustrations of various styles of ornament accompanied by the text will serve to familiarize the reader with these great historic periods of design and assist him in the recognition and appreciation of correct ornamentation.

The examples of ornament assembled in the plates have been derived from various sources. Notes taken during the lectures of Dr. A. D. F. Hamlin, while the writer was a student at Columbia University, have been of

FOREWORD

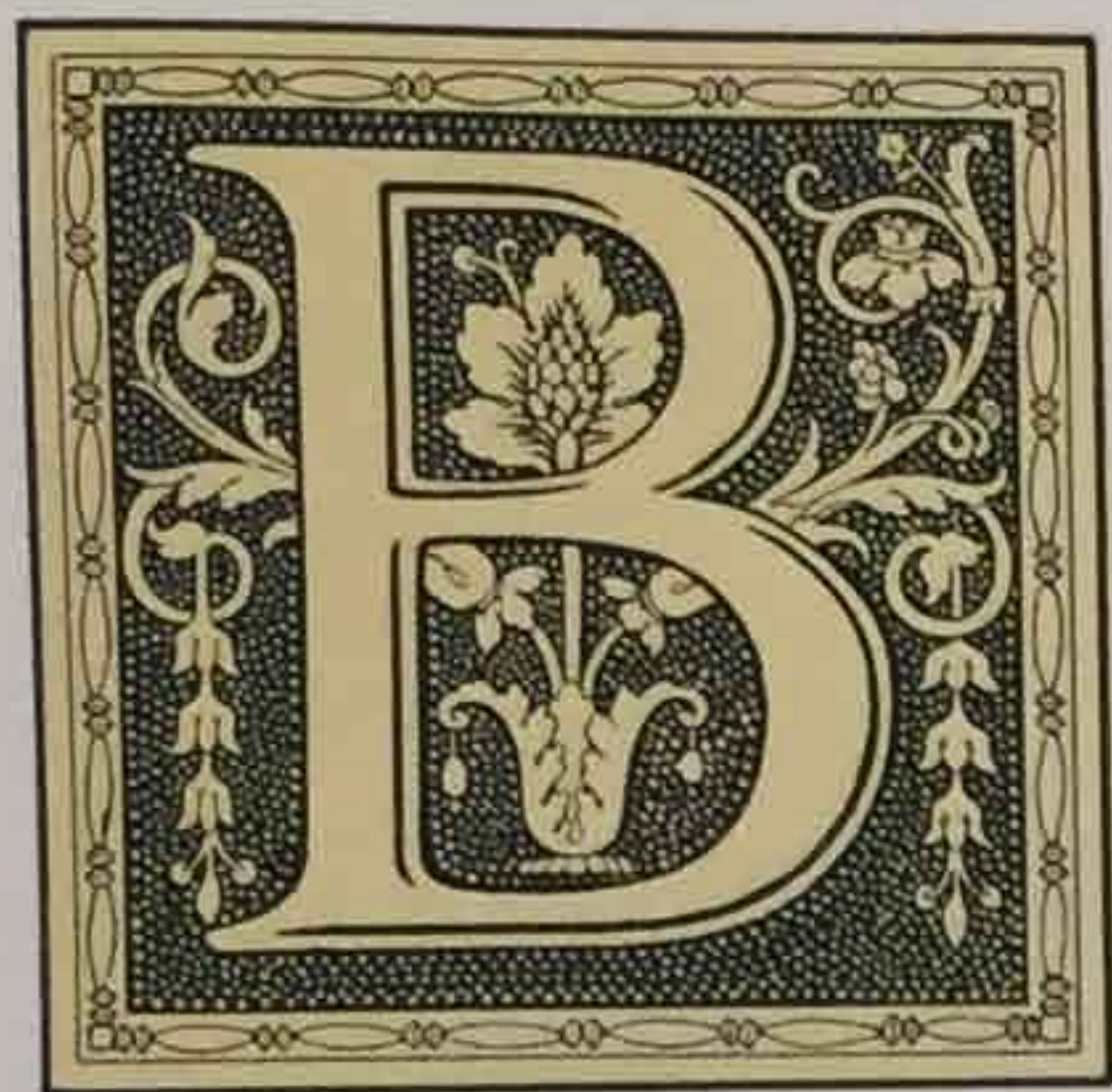
great value, as well as "The History of Ancient and Medieval Ornament" and "The History of Renaissance and Modern Ornament" by Dr. Hamlin, "The Grammar of Ornament" by Owen Jones, "Myers Handbook of Ornament," "Speltz's Ornament," the splendid restorations made under the direction of H. D'Espouy, "Edifices of Modern Rome" by Paul Letarouilly and various volumes on Gothic and Colonial architecture.

HENRY POWELL HOPKINS.

347 N. Charles St., Baltimore, Md.

June 2, 1924

HISTORIC STYLE



BRIEFLY defined, historic style is a characteristic kind of design which developed in a certain country to a high point of perfection and possessed sufficient merit to outlive the conditions which produced it. It is the representation in all fields of fine arts of the social, intellectual, religious and economic conditions which prevailed in certain countries during the growth of their culture and civilization.

One often hears the use of an historic style spoken of as if it started and stopped on definite dates. Such a belief is not correct, for all styles have their cycles of beginning, apex and decline. The beginning of any style is always influenced by that which has gone before, often to such an extent that it is difficult, during the transitional period, to tell in which style a certain motive may belong.

Students of the fine arts are met with the question, why does America not have an historic style of its own. In certain fields of the fine arts, we have; in others, time will produce them. No historic style ever grew from a briefer period than several centuries. To attempt to build theories of art, or to form a style independently of the past, would be an act of supreme folly; it would be at once to reject the experiences and accumulated knowledge of thousands of years. On the contrary, we should regard as our inheritance all the successful arts of the past, not blindly following them, but employing them simply as guides to find an expression in the arts which best fits our needs. For a long time we sought to reproduce the forms of European art, but new conditions imposed new development. Commerce with other lands has brought in foreign influences to which we are peculiarly susceptible. It is only with political and commercial independence, fully developed internal resources and a high national culture that the fine arts enter upon a truly national growth and develop a national style.

We, in America, have originated new construction methods, new types of buildings and a distinctly American treatment of composition

and mass in many classes of buildings, the decorative details being still, for the most part, derived from historic precedents.

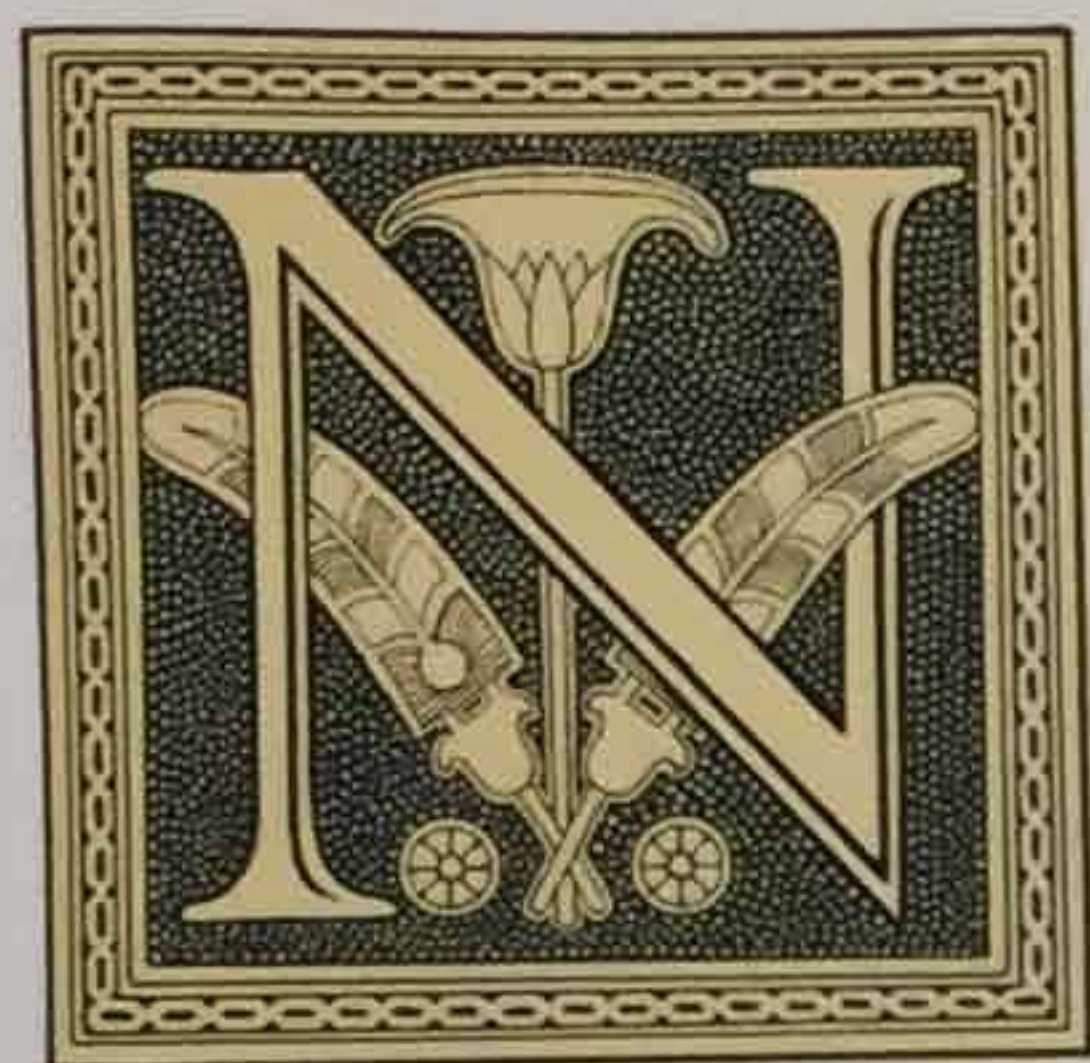
New schools of architecture have been established, museums of art opened and enlarged, all stimulating an artistic awakening; a great impetus to all of these influences was given by the Centennial Exhibition at Philadelphia in 1876 and the Columbian Exposition at Chicago in 1893. These brought, for the first time, the products of the American people in contact with those of European and Oriental art. Beginning first in the domain of industrial and decorative art, its stimulating influence rapidly extended to painting and architecture with lasting results. In recent years, the influence of historic styles has appeared throughout all industry wherever design is a factor and it is a natural consequence that today it is a vital force in memorial art.

Of the various historic styles the following have been selected for treatment in this book:

- | | |
|--------------|----------------|
| I Egyptian | IV Celtic |
| II Greek | V Gothic |
| III Roman | VI Renaissance |
| VII Colonial | |

One chapter will be devoted to each style and will be accompanied by a plate illustrating various examples of the ornament of the period and by another plate showing applications of certain of these ornaments to modern memorials.

EGYPTIAN ORNAMENT



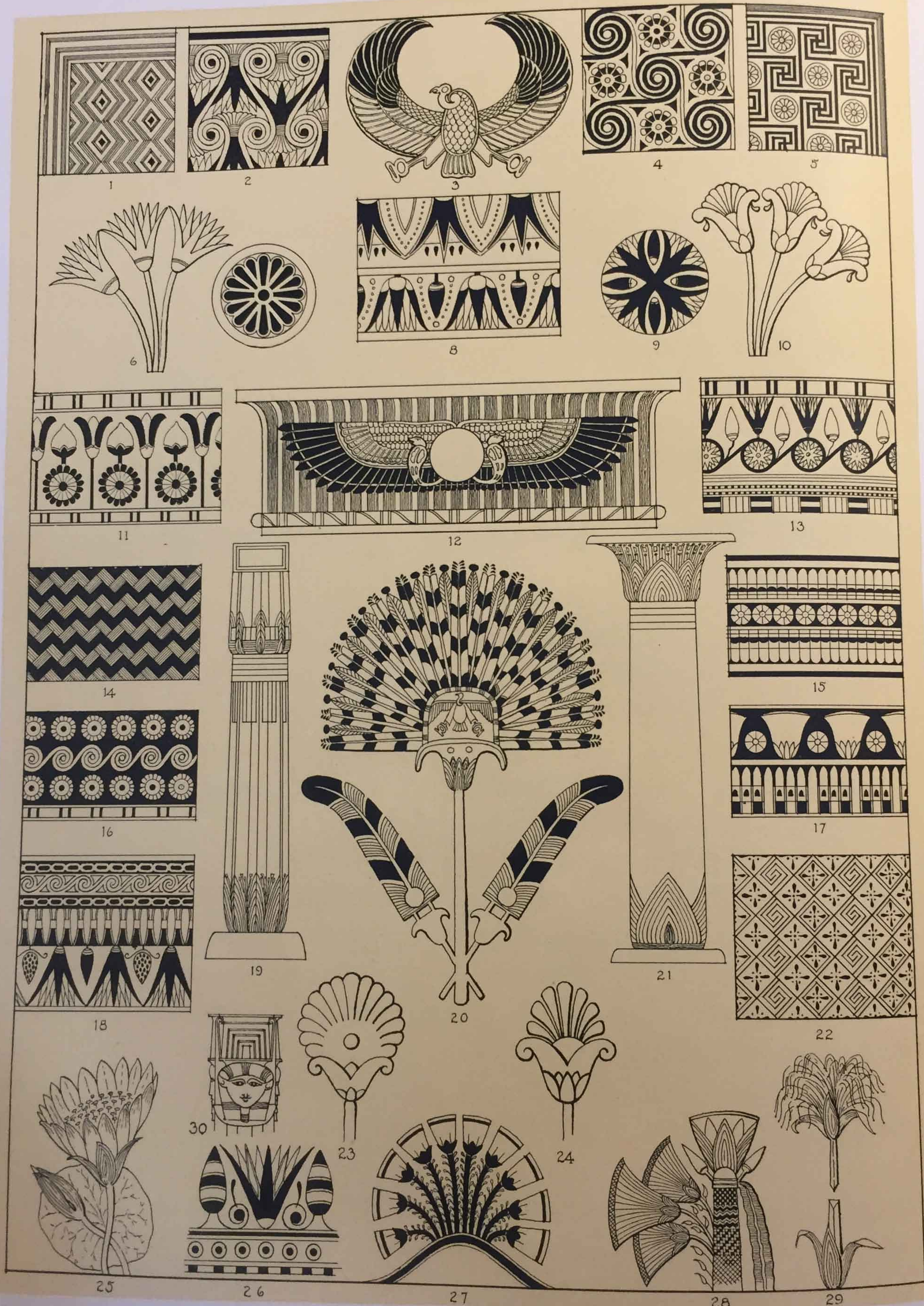
O people, either ancient or modern, have had a national architecture at once so sublime in scale, so grand in expression and so free from littleness as that of the Ancient Egyptians."—*Champollion*.

The Egyptian is the oldest civilization of which authentic particulars are known. It is, therefore, natural that the commencement of architectural ornament should be along the valley of the Nile. Egyptian ornament, as well as that of some other periods, falls into three general classifications, Natural, Geometric and Architectural.

Natural forms, which were always strongly conventionalized, were derived from plants and animals and the former were based largely on two plants, the lotus (see plate I, drawing 25) and the papyrus (drawing 29).

The lotus is a large water-lily which grows in profusion along the banks of the Nile and has been said to symbolize to the Egyptians food for the body and mind. It is shown in the hands of kings and gods, laid upon altars as an offering and tied to the tops of posts and columns as an embellishment. The conventionalized representations were usually in side elevation with three sepals, or supporting leaves, and six petals, with the bud between each flower (see drawings 6, 8, 9, 13, 18 and 26). The bud between the flowers, however, is often replaced by bunches of grapes or forms following that of the bud as shown in drawing 18. The lotus was used as an all-over pattern with the spiral (drawing 2), but more commonly as a band or border and in many cases a pattern for capitals on columns.

A derived form of the lotus with the petals omitted is used in the rosette with an exaggerated bud, as shown in drawing 11. Drawing 8 indicates the similarity of the upper row of conventionalized lotus to



the egg and dart, which appears in Greek and nearly all subsequent ornament. Professor Goodyear, in his "Grammar of the Lotus," tries to prove that all historic ornament is derived from the lotus. While this is not conceded by all authorities, it is interesting to note the marked similarity between the Egyptian lotus and the egg and dart, which was developed in a later civilization.

The palmette (drawings 10, 23, 24) is the name given to an ornament which occurs in Egyptian, Assyrian, Phoenician and Greek art and from which the Greek anthemion is a direct derivative. The origin and significance of this ornament are not fully determined. It is universally agreed that it is a lotus motive, but how the combination of a semi-rosette with a trilobe lotus came about and what it meant are not clear.

The papyrus (drawing 29) with its tall stems and root leaves is similar to our native marsh rush. It consists of a straight, stiff, triangular stem with four root leaves covering a slightly swelling base. The conventionalized form of this plant was used as a painted decoration (drawing 17), bell capitals (drawing 21) or columns (drawings 19 and 21). The stem grows tiny flowers which are worked into the design of the capital of the column as shown in drawing 21. Other uses of the papyrus can be seen in drawing 19, where a cluster of the triangular stalks is tied together, making a column. Drawing 28 shows both the papyrus and the lotus; the former at the left, and the latter at the right with its stems bound with matting.

Chief among the animal forms was the vulture with its widespread wings (drawings 3 and 12) which symbolized protection and maternal care and was used on cornices, over entrance pylons and painted on ceilings, chests, walls, etc. The wings alone are shown with the circular disk, representing the sun, or god Ra; the wings with the disk flanked by the hooded cobra were the symbol of death (drawing 12).

Feathers are often used in the form of insignia, head dresses (drawing 20) or great fans and they form the motives for column capitals and are used in geometric patterns with the lotus, papyrus and rosette (see drawings 15 and 17).

Geometric patterns were based on a few simple elementary forms. The spiral shown in drawings 2, 4, 13 and 16 was used in all-over patterns, as



well as a running ornament. Later it came to play a very important part in Greek ornament. The circle was the basis for the rosette and is shown in various uses in drawings 4, 5, 7, 9, 11, 15, 16 and 17. The rosette was designed in a great many ways, sometimes inspired by flowers, but more often of purely geometrical origin. The zigzag (drawings 1 and 14) was commonly supposed to represent the wave motion of the Nile. This motive may have come from the patterns formed by the weaving of matting and cloth. Lozenges, shown in drawing 1, were produced by placing zigzags back to back.

The S-scroll, composed of two spirals, which appears in drawings 2, 4 and 16, was used both as an all-over pattern and band ornament. When two such scrolls are placed back to back, the space between is often filled with lotus flowers as shown in drawing 2. When the scrolls run diagonally, rosettes are often placed in the spaces between the scrolls (see drawing 4). The S-scroll was later used in Greek work as a connecting link between anthemion motives (see plate II, drawings 22, 23 and 24). The plain scroll was formed as a running ornament (see plate I, drawings 16 and 18) or in connection with the support of lotus flowers (drawing 13).

The fret motive shown in drawings 5 and 22 seems to have been used by many peoples independent of and far removed from each other. In Egyptian ornament, it is rarely used as a border, but more commonly as an all-over pattern, as shown in the above drawings. Note the similarity between the fret and what is known as the swastika design, which was used by many widely separated peoples both savage and civilized.

Of the various architectural forms used by the Egyptians only a few are of value in monumental designing. The Caveto cornice (drawing 12) was supposed to have received its form from a wall constructed of two rows of wood stalks set into the ground, tied somewhat below the top, and the intervening space filled with earth. The weight of this earth above the bands spread out and bent over the wood stalks, thus forming the curved cornice, which was adopted in architectural design.

Columns were used in many forms, usually based upon the papyrus and lotus motives. Later in the Egyptian period the Hathor headed capital (drawing 30) was introduced. These column capitals were square and their

four faces were supposed to symbolize the power of the goddess Hathor to see in every direction.

The obelisk, the simplest form of ancient memorial, was first used by the Egyptians and originally appeared to have symbolized re-creation. Obelisks were at first erected only on the east bank of the Nile and the pyramids on the west bank—the obelisk, allegorical of the rising sun, and the pyramid of the setting sun, evidently representing the living and departed monarchs. The sacred character of the obelisk is proven by its invariable association with the Egyptian temples. Here they were usually erected in pairs, on either side of an entrance to the larger courtyard. They were never attached to the walls but were free standing and, while they formed no part of the structure itself, yet no temple was complete without them.

GREEK ORNAMENT



THE progress of Greek art stands in sharp contrast with the slow advance of Egyptian art, largely because it was not restricted by similar religious traditions. Greece was modern in spirit and appeals to modern tastes. Native artisans carried the perfection of pure form to a point which has since rarely been reached and it is common belief that the presence of refined taste was almost universal.

The art of Greece marks the beginning of European civilization. Being a group of small states on the border of the Mediterranean Sea with maritime pursuits as a large part of their occupation, direct contact with Egypt and Assyria was unavoidable. These two civilizations were the centers of art previous to Greek domination and it was but natural that they should have had direct influence upon Grecian art. Greek ornament follows the same general classification as the Egyptian and in this chapter the divisions will be considered in the same order.

First among natural forms comes the lotus and its bud, which with the palmette were brought into Greece from Egypt. The use of the lotus bud and palmette is shown on plate II, drawing 18.

The anthemion (drawings 20 to 26 inclusive, also drawings 30 and 34) is the most important and most beautiful of all Grecian motives. It can be clearly traced back to the lotus and palmette forms of Egypt. Its similarity to the honeysuckle flower is not recognized as an attempt at imitation, but rather as an application of the principle on which the flower grows. The direct influence of the alternating lotus bud and lotus flower pattern of the Egyptians is clearly shown in drawings 23 and 24.

The vine motive occurs sometimes with a straight stem (drawing 32), sometimes with a curved stem (drawings 9, 10, 16, 28 and 33). It may represent in different examples the laurel, ivy or grape vine. The laurel wreath was the crown of victory in athletic and literary contests. The ivy



and grape vine were both sacred to the Greek god Dionysos, the god of wine.

The acanthus was the common plant native to Greece and Italy. Its leaf is similar in character to the leaf of the thistle plant with its pointed ends. This motive was first introduced into ornamental forms by the Greeks as a covering for the branching of scrolls (see drawing 14). The conventionalized leaf as used upon the Corinthian capitals is shown in drawing 17 and in combination with the anthemion motive in drawing 26.

The head of the lion and sheep seems to have been the chief use of animal forms by the Greeks. Drawing 11 shows the side elevation of a lion's head from the cornice of the Parthenon.

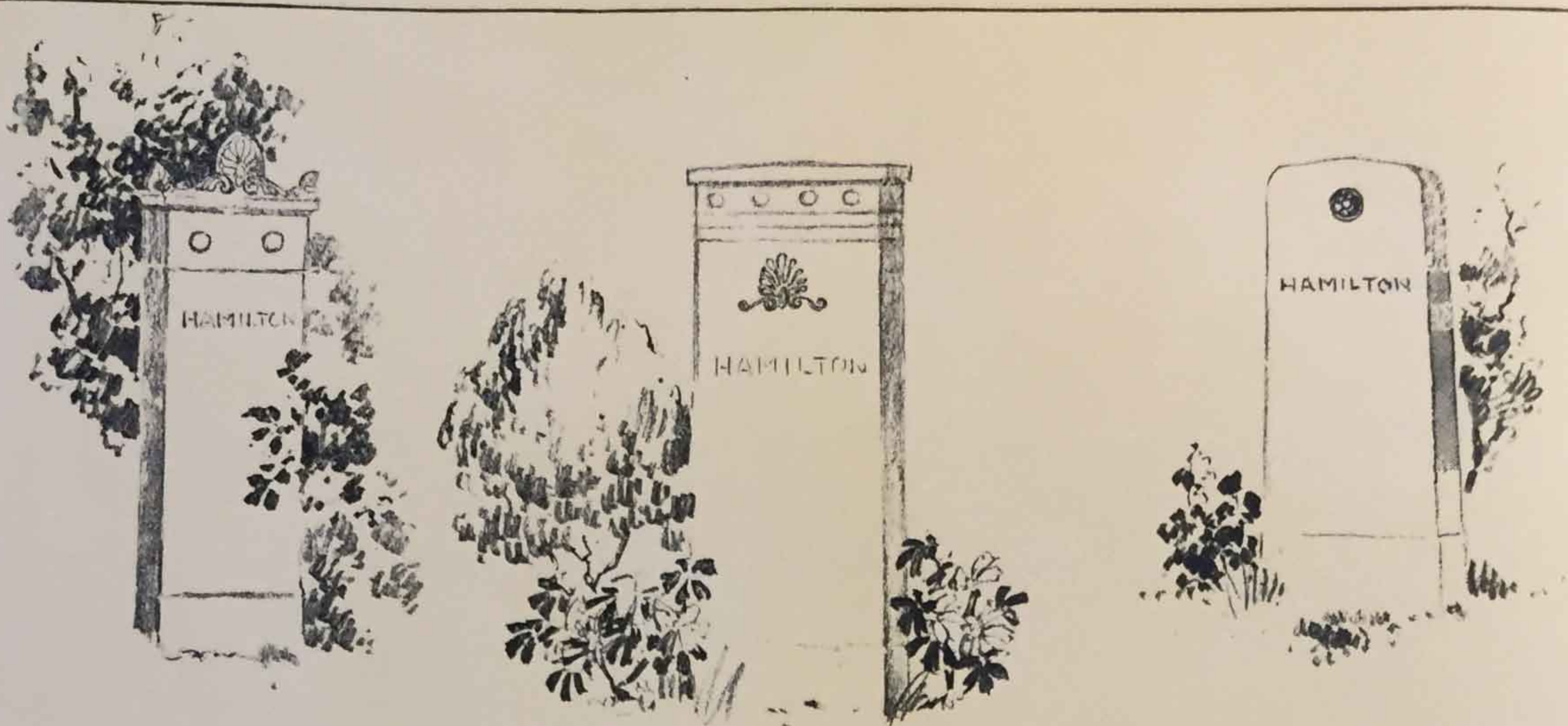
Of geometric patterns, the fret is one of the best known. In drawings 1, 2, 3, 4, 6 and 8 are shown some of its variations from the simple generating form in drawing 4 to the more complicated fret in drawing 6. The number of forms that can be produced by lines at right angles is somewhat limited. First in drawing 4, we have the simple fret proceeding in one direction with a single line. Other forms of fret are obtained by placing one under another, running in different directions (drawing 1) and back to back (drawing 6), with inserted rosettes. The raking fret, A and B, is believed to be the parent of all later forms of interlacing ornament.

The wave or Vitruvian scroll occurs in Egyptian ornament (see plate I, drawings 13 and 16), but there is some question as to whether this motive came directly into Greek art from Egypt. It was used by the Greeks in various patterns (see drawings 29, 31, 35) and in one form or another by nearly all subsequent civilizations.

The spiral is common to nearly all styles of ornament. There are two types in Greek work, the single spiral (drawing 16), which branches from the wave movement of the vine, and the branched spiral (drawings 21, 22, 30).

In the single spiral there is just one scroll at the end of the stem. In the branched spiral there are never more than three spirals coming from the stem. Drawings 20 to 24 inclusive and drawing 26 show the S-curve which is frequently used in connection with the spiral.

Rosettes (drawings 5 and 7) were common to almost all styles of orna-



ment and are found in great variety of design, some being purely geometrical, others evidently conventionalized flowers. The guilloche is illustrated in drawing 27 and occurs in both the single and double scroll. Whether this form was originated by the Greeks or borrowed by them from Egypt is not definitely known.

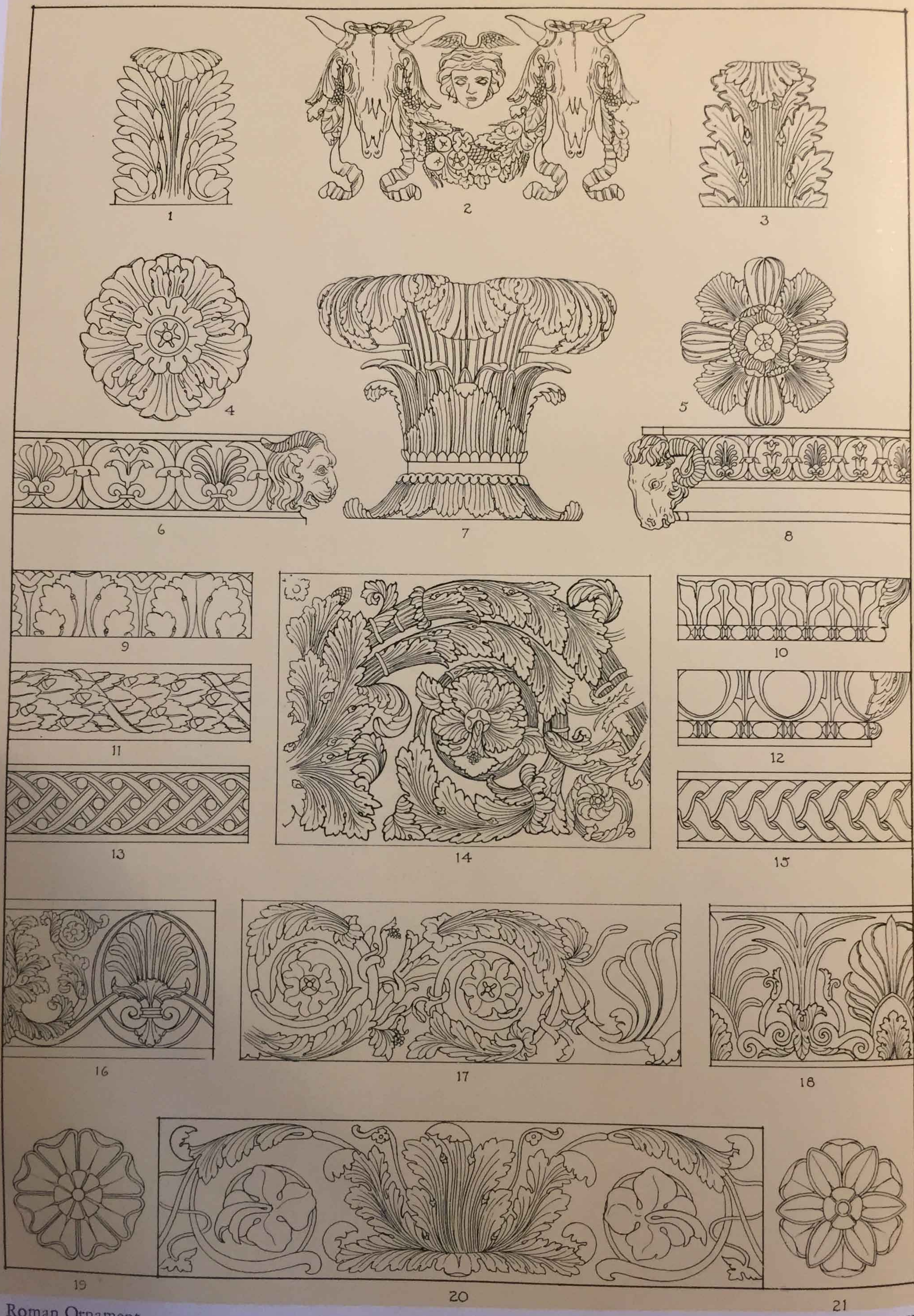
The architectural mouldings of the Greeks (drawings 15, 36 and 37) were invariably noted for their refinement of profile and their proper relation in mass with one another. Drawing 37 shows dentils which are the teeth-like mouldings in one of the upper members of a cornice. They evidently originated in the early days of wood construction, when the ends of wooden rafters resting on the beam below were allowed to project through the wall of the building.

The egg and dart, shown in the upper part of drawing 26 and the central part of drawing 37, was evidently derived from the lotus ornament, as shown in the upper part of drawing 8, plate I. The section of this ornament was a quarter round.

An example of the water leaf appears in drawing 13. This occurred on such moulds as are shown in drawing 13A.

The bead and reel (see center of drawing 26 and top of drawing 37) was usually carved in the form of a half round member in connection with the egg and dart or water leaf and may have been derived from bits of jewelry made of beads separated by tiny reels.

The festoon, or swag, was a motive developed late in Greek work, but it was not extensively used until after the Roman conquest of Greece. Then it was adopted by the Romans and became one of their prominent motives. In general, it is a group of flowers and fruit bound together, supported at each end, and allowed to sag in the central part (see drawing 19).

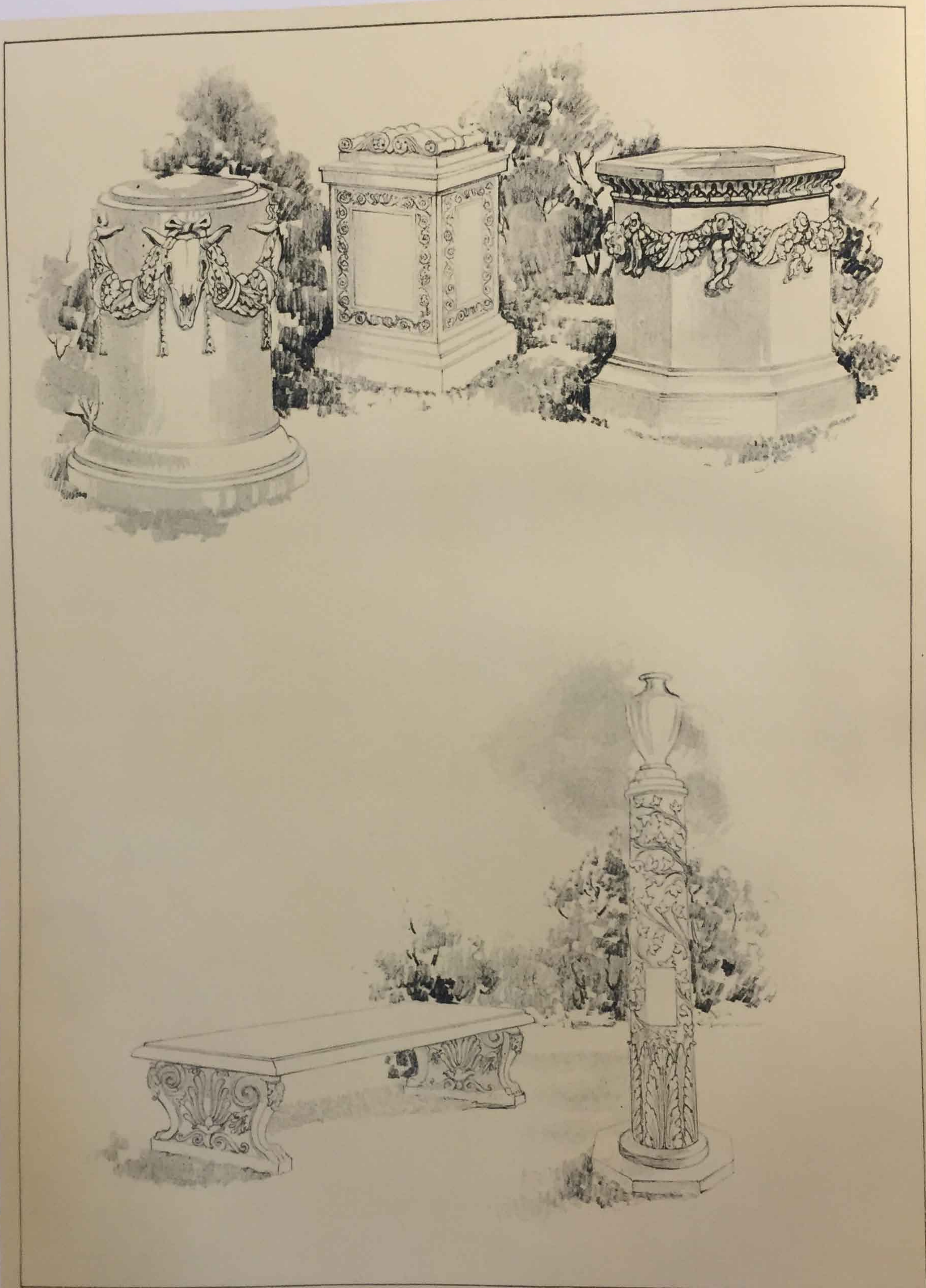


ROMAN ORNAMENT



ROMAN ART grew up under conditions quite different from those prevailing in Greece. Whereas Greece was comprised of a group of many states with one race, language and religion, Rome was composed of many countries and many languages and religions. The Romans may have lacked the universal artistic feeling of the Greeks, but they had remarkable ability for organization and administration. The Greek ideal in art was to arrive at a perfection worthy of the gods. The Roman ideal was self-glorification and the satisfying in their national life of a taste for luxury and splendor. Although the Romans were lovers and patrons of art, their energies were not devoted to producing it. They were content in most cases to import artisans from other countries, chiefly Greece, to carry out their ideas. These artisans were forced to work under conditions foreign to their ideals and, owing to this, Roman ornament often lacks the artistic completeness which characterizes the masterpieces of other schools. However, it was well adapted for the purposes which it had to serve and is worthy of study for its elegance and variety of design.

Nearly all of the principal forms of Roman ornament are modifications of those which have already been classified and described in previous chapters. The anthemion (plate III, drawings 6, 8, 16 and 18) can be traced back to Greek examples, but with a new and original ornament form. The rosette reveals great originality in motives, as shown in drawings 4, 5, 19 and 21. In treating the acanthus leaf, the Romans made it less massive than the Greeks—more finely modeled with emphasized eyes and pipes (see drawings 1, 3, 7, 9, 14, 16, 17 and 20). These so-called “eyes” were the holes where one part of the leaf folded over another, leaving an opening. The “pipes” were the wrinkles or pleats which resulted from the folding and which extended from the eyes to the base of the leaf.



A new motive, which had its origin in the waving stem of a vine, throwing off leaves alternately on either side to fill in the hollows of its waves, is known as the rinceau. The beginning of this motive can be seen in Greek ornament (plate II, drawings 9 and 10). In drawings 14 and 17, on plate III, are seen splendid examples of its complete and finest form as developed by the Romans.

The festoon (see drawing 2) was a garland made up of flowers, fruits and leaves, often accompanied by ribbons, ox skulls, etc., and was a form of ornament which was often used on altars and friezes. This motive had its beginning during the latter days of Greek art and was developed by Greek artisans under Roman guidance in countless ways.

Among the animal forms used in Roman ornament were the ox skulls, which were frequently used alone as well as with festoons, also the heads of other animals, such as sheep and lions' heads with horns (see drawings 6 and 8) and often human forms with the torso growing from a wrapping of acanthus leaves.

The bead and reel was used extensively by the Romans, but the bead was usually elongated, whereas that of the Greeks was nearly circular (see lower member of drawing 12).

The egg and dart bears a direct relation to the Greek but is wider and more open, the shell being farther away from the sides of the egg, the egg being more circular in shape and the dart taking on the form of a pointed arrow head (see upper part of drawing 12).

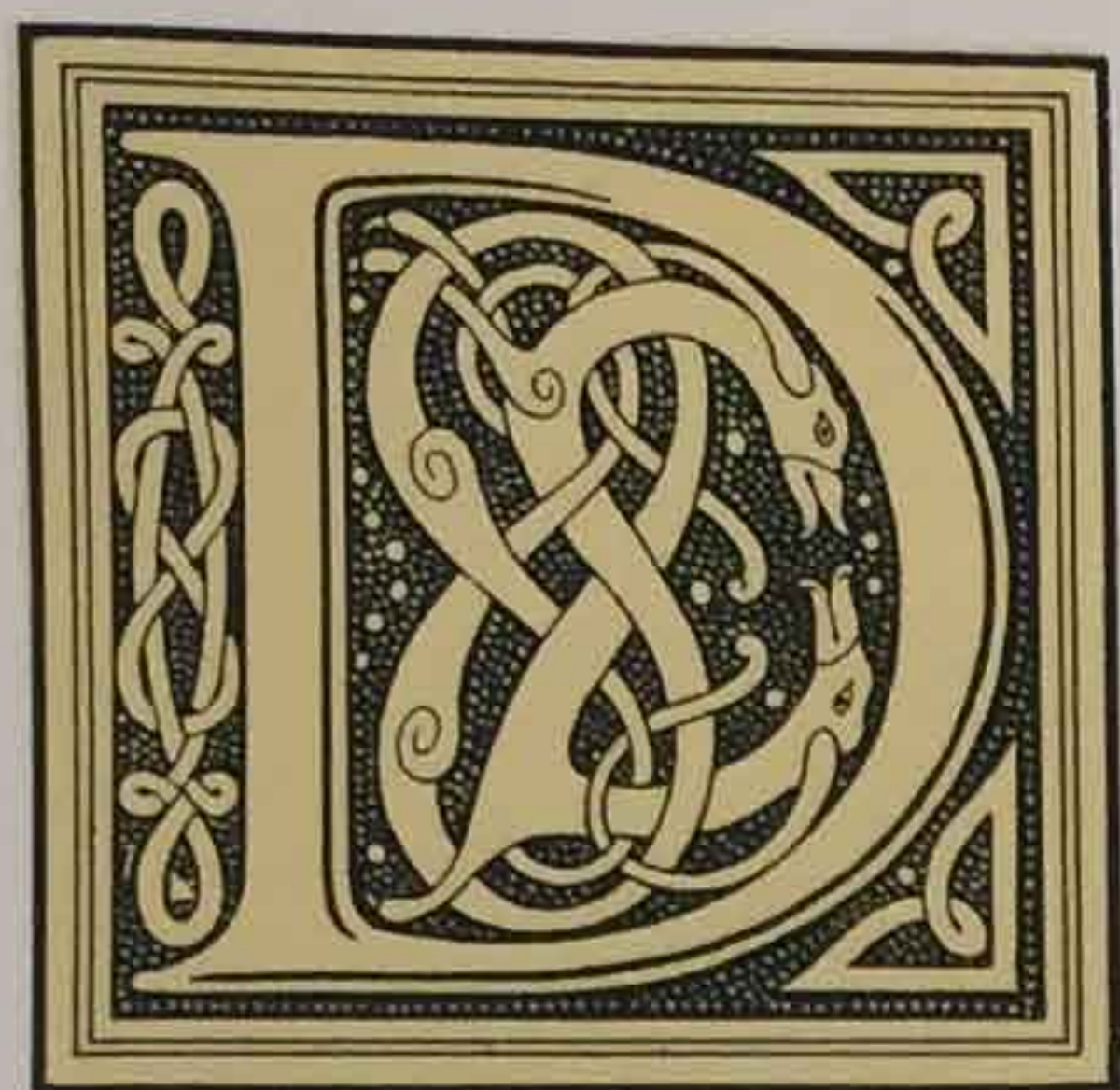
The water leaf shown in drawing 10 has flat fillets or edges, pointed darts and a general appearance of being short and wide.

Two variations of the guilloche are shown in drawings 13 and 15, the simplest form of which can be found in plate II, drawing 27. Drawing 11 on plate III shows the oak leaf on a half round moulding and is often used as the lower torus or half round member on bases of columns.

Because of the far-reaching influence vaulted construction had upon subsequent styles, it is proper to mention this element of Roman architecture in this chapter. Three types of vaults were commonly used: the dome, the barrel vault and the groined or four part vault. The dome rested on a circular wall built up from the ground. The barrel vault was generally

cylindrical in section and was used to cover corridors and oblong halls. The groined vault is formed by the intersection of two barrel vaults. When several groined vaults are placed beside each other a double advantage is secured. Side windows can be carried up to the full height of the vaulting instead of stopping at the spring line of the arch and the weight and thrust of the vaulted ceilings are carried upon isolated piers. It is this form of vaulting which was later adopted by the Romanesque and Gothic builders and in the hands of the craftsmen of the Medieval period its use with the application of the pointed arch in place of the round arch was responsible more than any one thing for the success of the Gothic craftsmen.

CELTIC ORNAMENT



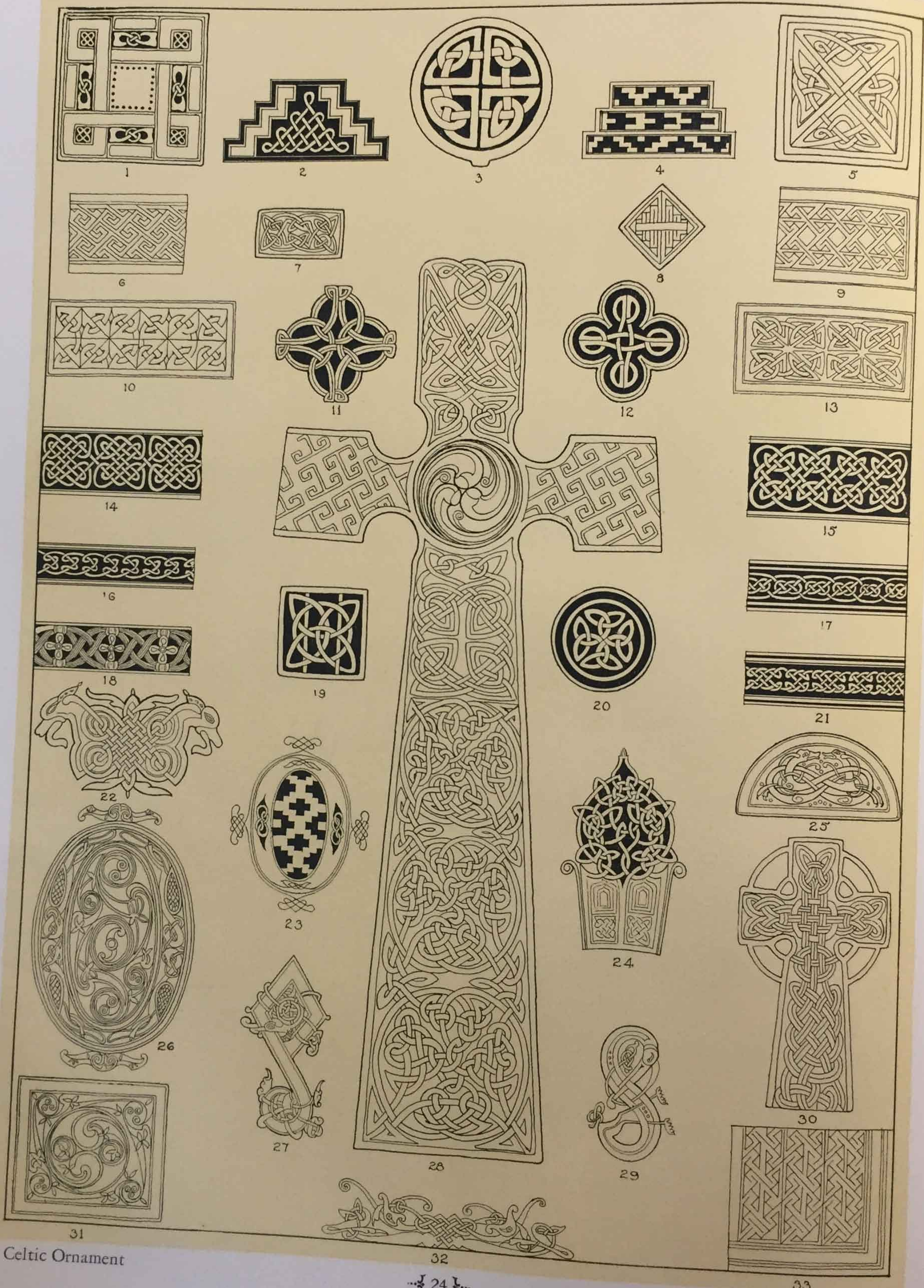
DURING the period from 400 to 1100 A.D., when the art and civilization of Europe had nearly disappeared in the oblivion of the Dark Ages, there developed in the Celtic monasteries of Great Britain and Ireland a form of ornament wholly distinctive and quite different from any that preceded it. This style originated with the decoration or "illumination" of Biblical manuscripts, which was carried out in a most elaborate fashion and which gradually came to be used on memorials, church plate and silverware and for many other purposes of ornamentation.

The actual sources of the Celtic style are shrouded in mystery, although there may be some basis for theories that connect it with Roman, Byzantine or Scandinavian forms. There is more reason to believe, however, that it was an original product of the Celtic races of Great Britain and Ireland, from whom it derives its name.

The chief general characteristic of Celtic ornament is the intricate, complicated form of its patterns. Interlaced ribbon work was used extensively in a geometrical manner. Diagonal and spiral lines were the basic ideas for many forms. Animal figures were used, but they were subjected to the necessity of filling a certain space in a certain manner, with the result that they, too, became interlaced, geometrical and wholly imaginative in character. It is doubtful if these complicated, intertwining patterns of the Celts had any particular religious or moral significance, although later generations have ascribed such meaning to them. So far as we know, they were used for purely decorative purposes.

The entire absence of flowers, foliage or plant forms of any sort is a noticeable characteristic of Celtic ornament. The human figure rarely occurs and architectural forms were never used.

The most typical of all Celtic patterns is produced by two or three spiral lines starting from a central point and radiating to the centers of



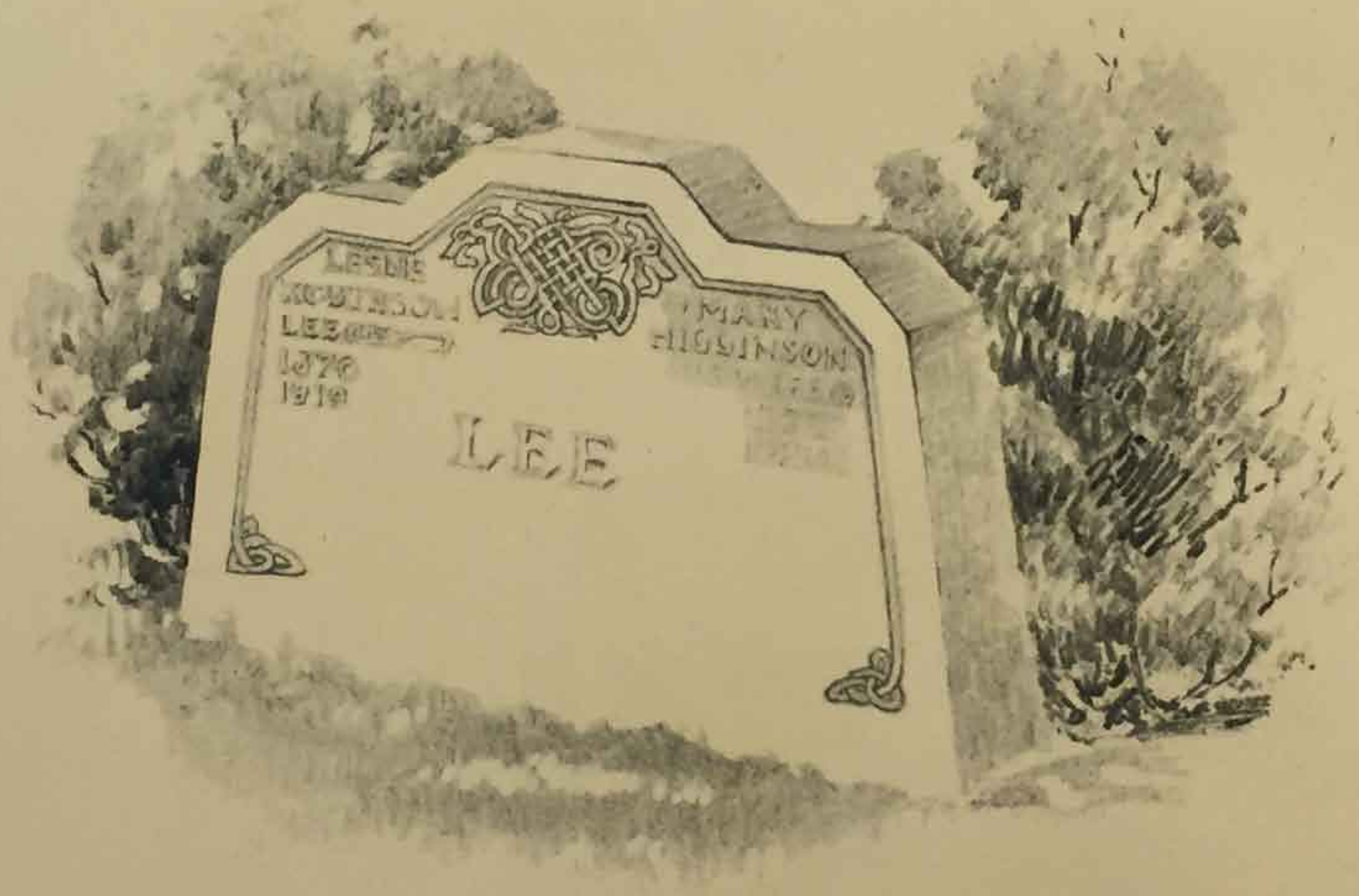
coils formed by other spiral lines (plate IV, drawing 31). Such spirals always took the same relative direction, following the form of the letter C. From this pattern the formal C-spiral developed, as shown at the intersection of the cross (drawing 28 and the center of drawing 26). This spiral was peculiar to Celtic ornament and never took the form of the letter S, common to preceding styles.

Drawings 6, 9 and 33 are examples of the ingenious use of the diagonal pattern. This resembles a fret, but it is not considered a true one. It is sometimes termed the Z pattern as the form of this letter, or its reverse, seems to be the primary element of the design. Its lines never interlaced and were usually spaced at equal distances.

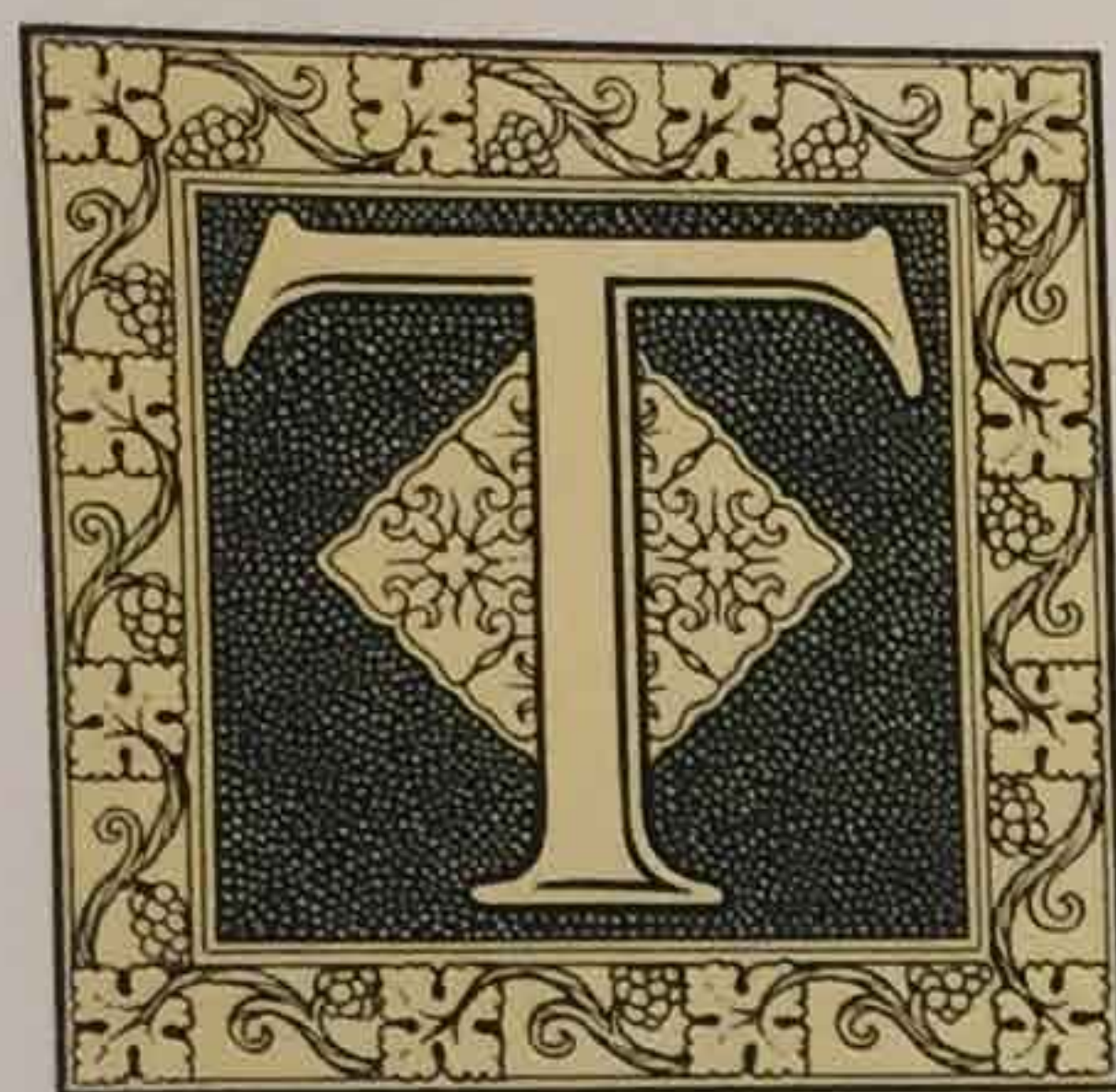
Another very simple ornament is a group of lines at right angles placed at equal distances apart, forming a series of steps (drawings 2, 4 and the center of 23).

The simplest form of ribbon ornament, the double oval, is shown in drawing 1. Another pattern, drawing 20, known as the triquetra, is extremely common. Drawings 11, 12 and 19 are modifications of this pattern. Drawings 3, 5, 7, 10, 21, 24, also 13 to 18 inclusive, consist of one or more narrow ribbons interlaced and knotted to suit the convenience of the design. This adaptability of Celtic ornament to any required form or space gives it particular value for memorial designing.

Drawing 22 represents two fantastic animals interwoven. Drawing 23 is the letter O richly embellished. Drawing 25 shows two animals interlaced to fit the rounded panel. Drawing 26 is the letter O embellished in the center with the C-spiral and at the sides with interwoven birds. Drawing 28 is a complete cross with the ribbon pattern carved on the shaft, the C-spiral at the intersection and the diagonal fret-like pattern on either arm. Drawing 27 is the letter Q wrapped around with an animal whose head starts at the top left side and whose feet end in two claws or toe nails, one on either side of the tail of the letter. Drawing 29 is an example of an animal used to make the letter S; drawing 32 shows another motive where animals with long tongues, twisted tails and arms are used to fill in an elongated narrow space.



GOTHIC ORNAMENT

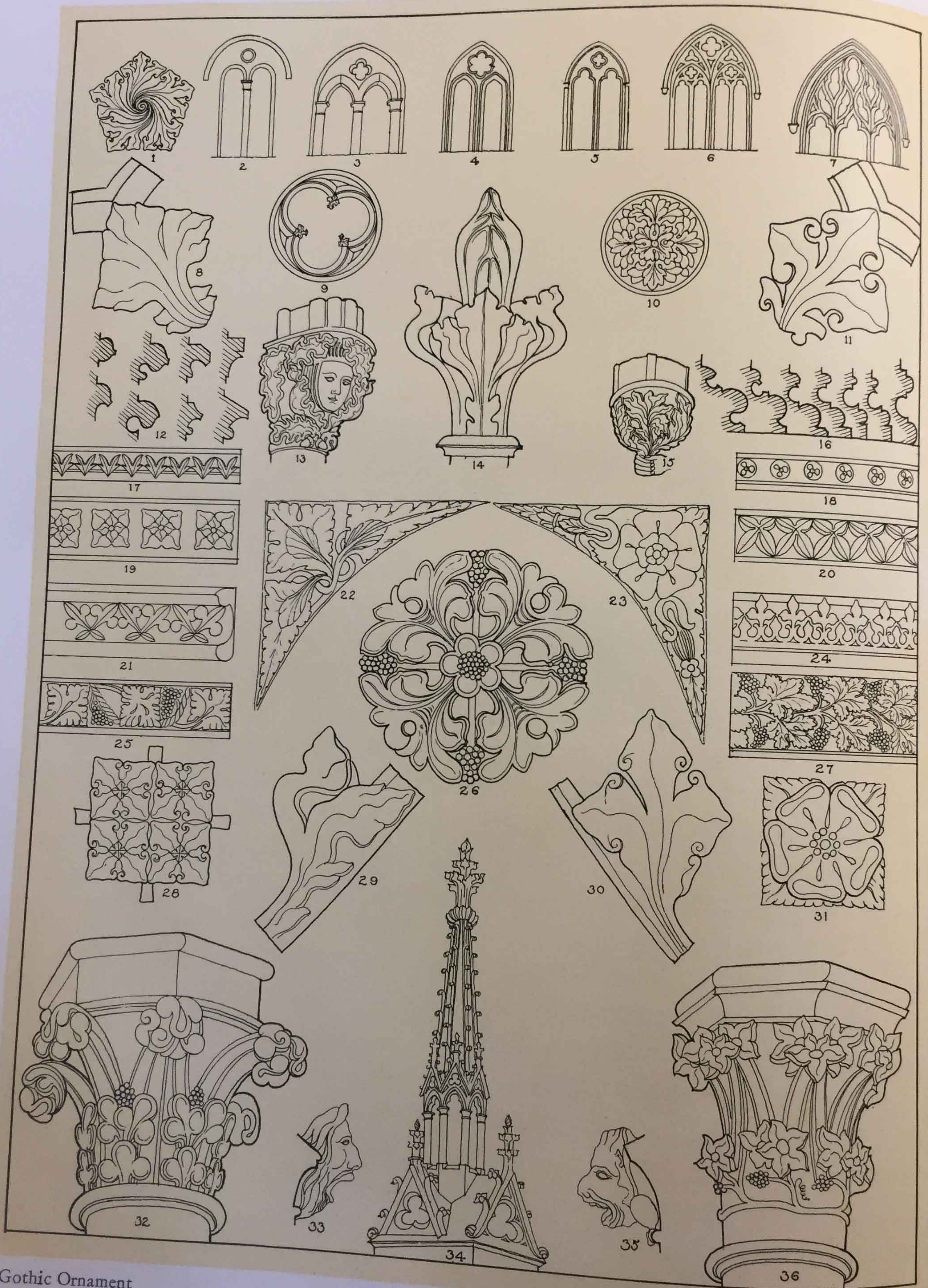


THE architectural styles which developed in Western Europe during the Medieval period between 1150 and 1500 A.D. were given the incorrect name of Gothic. The Goths, who lived in Central Europe and were primitive peoples, had nothing to do with the development of so-called Gothic architecture, the name being applied to it in contempt by its opponents. In reality this style was an outgrowth of the Romanesque. Its fundamental principles were the same and it dealt with the same problems, taking them up where the Romanesque builders left them and working out their solutions under new conditions.

Gothic art began in France, other countries borrowing both its general composition and details. Great Britain adopted the early forms and developed her own Gothic style. Germany copied French models closely, while Spain and Portugal borrowed from all three. The Italians developed no genuine Gothic style, but borrowed Gothic details mostly from France and applied them to churches, memorials and palaces, which, however, continued to be structurally based on classic principles.

Refinement, good taste and great originality characterize the details and ornaments of Gothic structures. The Greeks in harmonizing the requirements of utility and beauty approached the problem from the esthetic side, while the Gothic architects treated it from the structural side.

The great problem which Gothic architecture worked out to a point of perfection was the stone vaulting of a cruciform church with a clear story for light above the central aisle or nave. All the special forms and details of Gothic architecture are more or less incidental to this development; vaulting, ribbing, buttresses, pinnacles, clustered shafts, pointed arches, mouldings and tracery were all evolved in the process of solving this problem. The greater part of the ornament of Medieval churches, chapels and secular buildings consisted of the adornment applied to these struc-

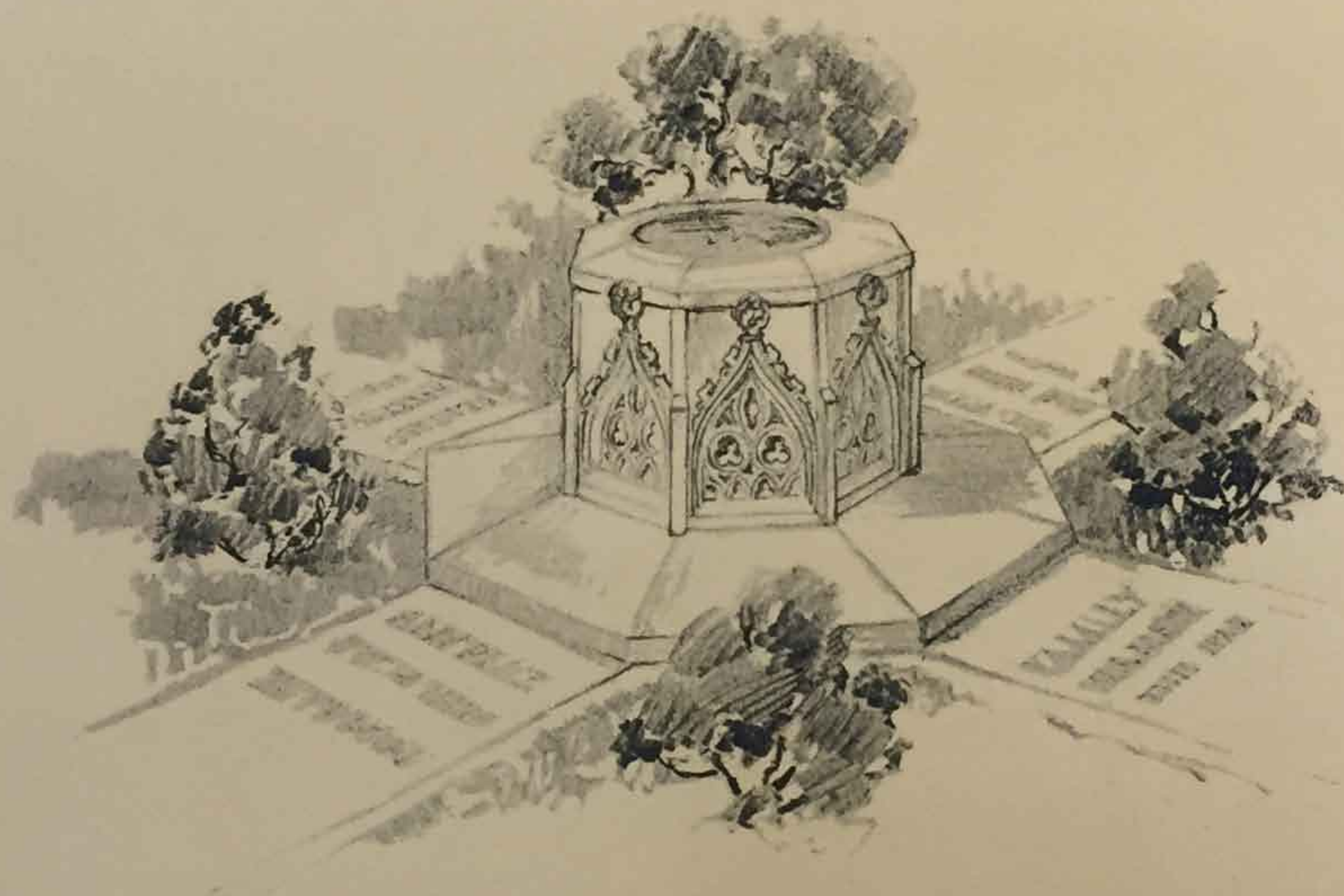


tural features. Whatever decoration was not structural, either in function or origin, was symbolic or pictorial. The sculpture and stained glass of the great cathedrals constituted an illustrated Bible which even the most illiterate could in a measure understand.

The pointed arch, usually looked upon as the most typical of Gothic forms, did not originate in Gothic art, but it was highly developed during this period. It had long been used in the Orient and often occurs in French Romanesque. What was really distinctive in Gothic architecture was the systematic application of two principles, partly recognized by the Roman builders, but apparently forgotten until revived during the Romanesque period. The first was the concentration of ceiling strains upon isolated points of support made possible by the use of the pointed or groined vaults in place of the barrel or semi-circular construction. The second was the natural result of the concentration of masses of masonry at these isolated points of support. The wall between these supports became a mere filling which permitted the use of large windows adorned with tracery (which is explained later). As these points of support became more isolated and slender an exterior and sometimes interior buttress was used to aid in sustaining the thrust of the vaulted ceilings.

It seemed to be the desire of the Medieval designers to enrich every constructive feature with the greatest amount of light and shadow and to embody in the ornament the greatest amount of allegory and symbolism. The recessed doorways and pier arches were moulded with a rich succession of hollow and convex members, carvings of saints, apostles, martyrs and angels, virtues and vices, allegories of reward and punishment. Another method of ornamentation was the application of tracery to wall paneling, balustrades, open work gables, spires and choir screens, the carving of capitals and the ornamentation of mouldings.

Direct recourse to natural forms, especially plant life, is a marked characteristic. At first the budding shoots of early spring were freely imitated or skilfully conventionalized in stone. During the thirteenth century the more advanced stage of plant growth, with leaves more complex and detailed, furnished the models for carvers. The adaptation of natural forms to architectural ornamentation degenerated toward the end of the Gothic



period into a minutely realistic copying of natural foliage, notable chiefly for its cleverness of execution.

For the sake of convenience Gothic ornament has been divided into three main periods, the Early, the Developed and the Florid. The ornament of the Early period is the simplest and most vigorous, with the imitation of natural forms least literal. In the Developed period, design and execution are finer, ornament more profuse and naturalistic, and window tracery became a more important element in decoration. In the Florid period the ornament is more complex and often overloaded.

Every important structural feature was either made an ornament in itself or decorated with crockets and finials or with foliage and flowers on enriched mouldings. Crockets are usually found along the edges or hips of gables and are composed of outward curling leaf-like projections richly carved. Where these terminate at the top of a gable they form a motive known as the finial composed usually of a central stem, ending in a ball or bud and branching out below this into four or more crockets. Mouldings play a very important part in Gothic expression. Pear shaped sections (plate V, drawing 12), alternating with deep hollows, produce effective contrasts with multiplied narrow lines of light and shadow. Drawing 16, reading from right to left, clearly shows the evolution of the classical base mouldings to the Gothic base mouldings. Enriched concave mouldings are more frequent in English than in French work. These are adorned with leaves (drawings 21, 24, 25, 27), ball flowers (drawing 18), dog tooth (drawings 17 and 20) and pyramid flowers (drawing 19).

Window tracery was one of the most decorative and characteristic features of Gothic architecture. The growth in the size of the windows contributed greatly to the development of tracery which was necessary for the support of glass. Its evolution can be traced (drawings 2 to 7 inclusive) from the coupling of twin windows under a single arch to the florid net-work of the fifteenth century. In its earlier form it consisted merely of decorative openings, cubes and quatrefoils, designed as if pierced through slabs of stone and known as plate tracery, which filled the window heads over coupled windows (drawings 2 and 3). Later, attention was given to the form of stone work, which was made lighter and richly moulded. In the

later periods, the circular and geometric patterns were abandoned for more flowing and imaginative designs (drawing 7), pinnacles (drawing 34), crockets (drawings 29 and 30) and finials (drawing 14), all of which were as characteristic of the Gothic style as the tracery.

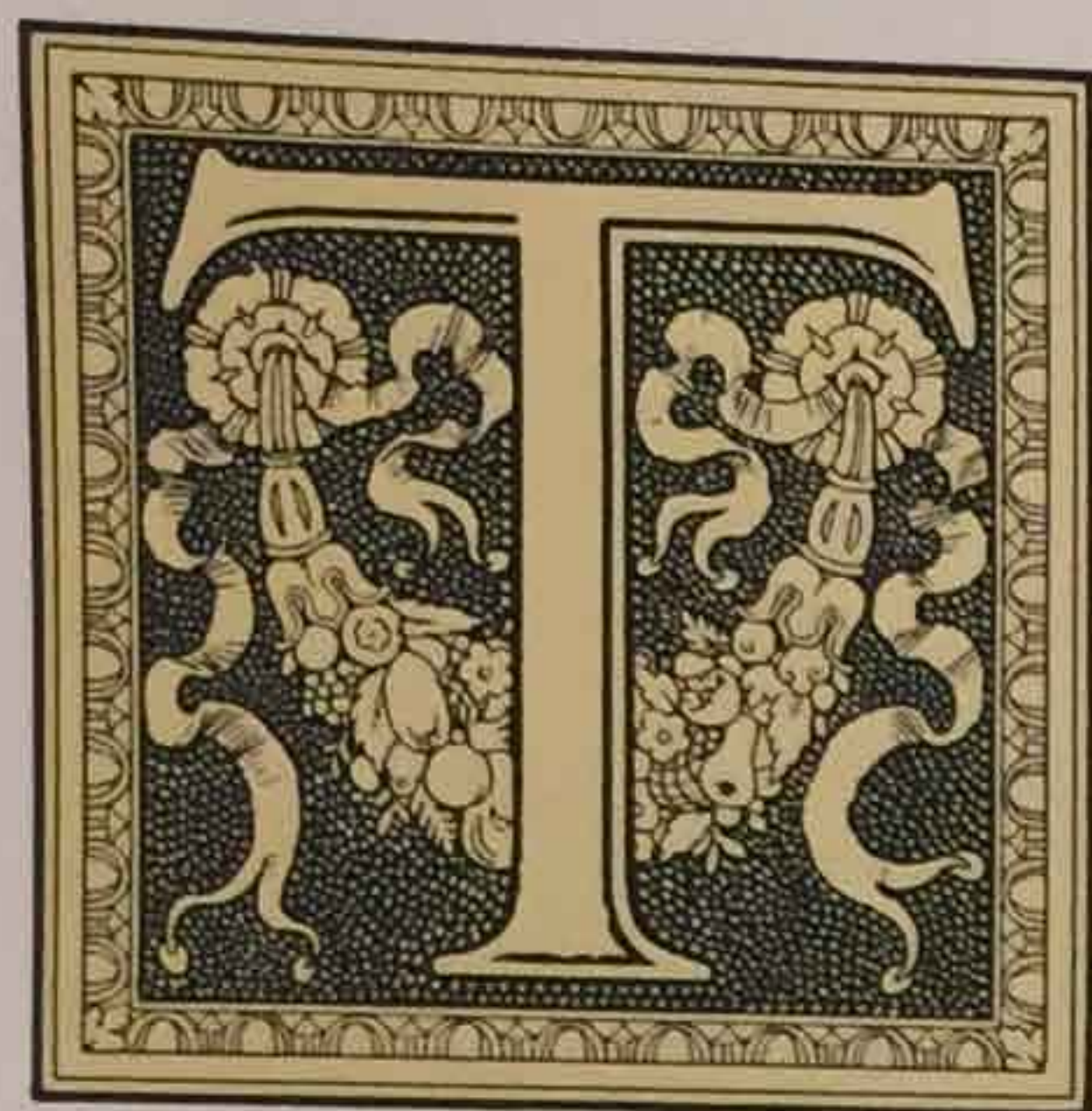
Buttresses were usually terminated by a tall slender pyramid, square or octagonal in plan, rising from gables covering two or four faces of the buttress top. These pinnacles were adorned along the edges with crockets (drawing 34) and terminated in a finial.

Corbels (drawings 13 and 15) were of frequent occurrence in all Gothic styles as supports for statues, columns, vaulting ribs and shafts. They were almost always carved with foliage after the manner of the capitals. Grotesque heads and human figures appear in the place of foliage in the later period.

Drawings 8 and 11 are two examples of the leaf used to cover the meeting points of mouldings (see drawing 9). Drawing 10 shows the circular rosette and drawing 1 a five-sided rosette. Drawing 26 is a group of leaves circular in form, shaped to cover the intersection of vault ribbing, and is known as a boss.

The triangular panels (drawings 22 and 23) are two treatments of foliage to fit a particular shape; drawings 28 and 31 are examples of square rosettes and drawings 33 and 35 are two typical grotesques which are to be found along horizontal mouldings. In drawing 32 we have an example of a capital decorated with foliage carved after the style of the Early period and in drawing 36 are examples of the later or more naturalistic carving used for the same purpose.

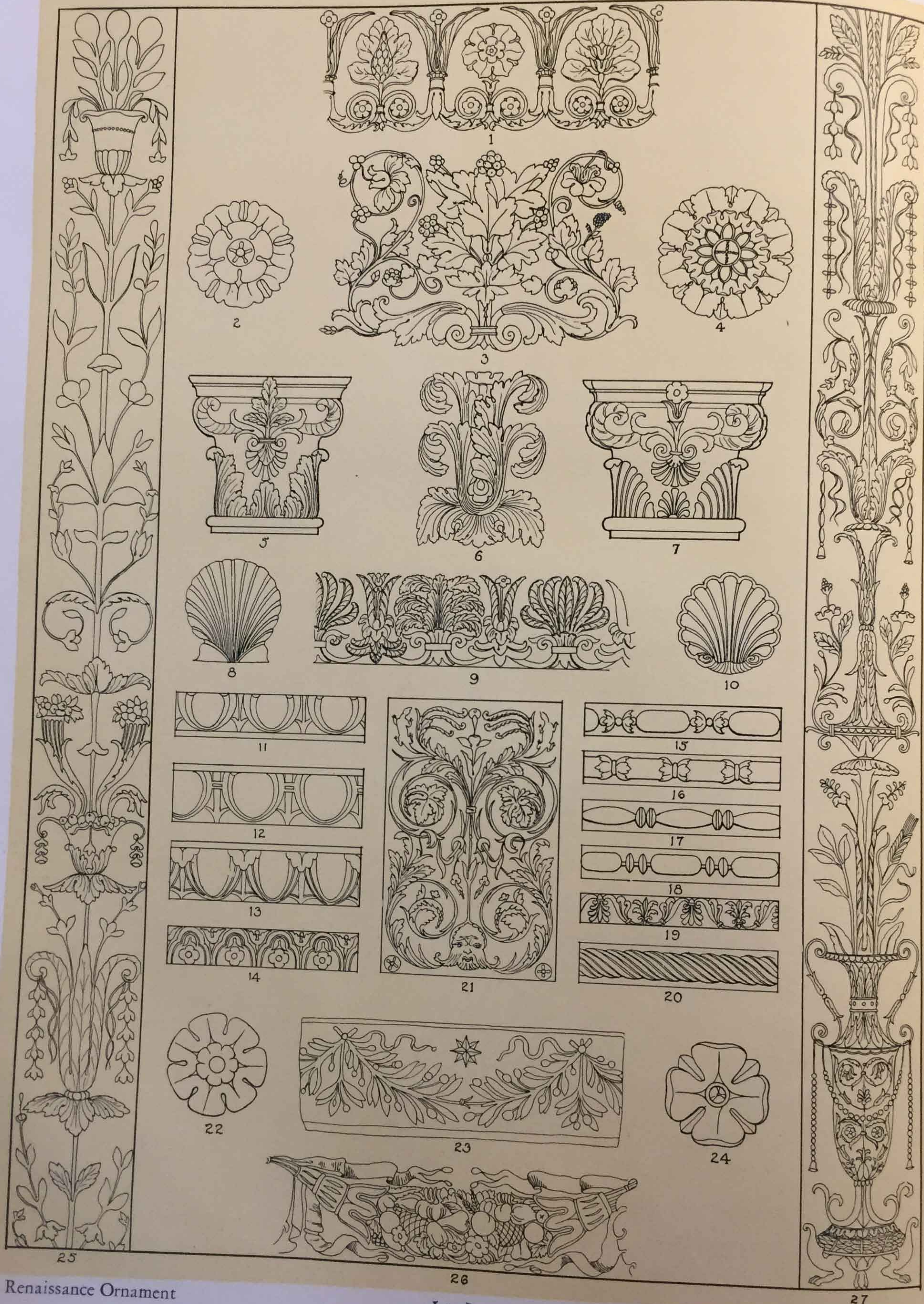
RENAISSANCE ORNAMENT



THE Renaissance is the name given to the great movement which displaced the ideals and intellectual habits of the Medieval Ages in favor of the new ideals and mental processes on which modern learning and civilization are founded. The abandonment of Gothic art and the substitution of classic models was a very slow and far-reaching process. The roots of the movement may be traced far back into the Middle Ages, beginning in Italy and spreading, in time, to France, Spain, Germany and Great Britain.

The reason for this new expression of art was the protest of individual reason against the pressure of arbitrary authority as exercised during the Medieval Ages by the Church and the State.

The Renaissance laid the foundation for modern civilization. It is the result of all branches of the fine arts being produced by individuals who gave expression to their own personal taste. It is a history of the efforts of various artisans studying the ancient classic examples and interpreting them each in his own way. The artisans, as well as those in power, longed to rival the luxury and grandeur of Ancient Rome, and appropriated the many motives from antique monuments which abounded on every hand, totally unconscious of the difference between their own conceptions and those they thought they imitated. Unknown to themselves they were creating a new style in which the Roman motives were fitted to new requirements. The growing indulgence of personal luxury called for the building and adornment of palaces and gardens; civic pride and personal vanity stimulated the building of splendid tombs and monuments. All this was the accompaniment of the new intellectual life of the Renaissance with its eager questioning of the past and its ventures into new fields of inquiry. This striving for knowledge, for an ideal, bears a strong resemblance to the progress of Greek art; and the sources of modern scholarship



and science are found in the Renaissance with its independent attitude toward authority, toward the past, toward nature and the universe.

The Renaissance began in Italy because in the city states, municipalities and guilds of Northern and Central Italy the spirit of independence and a growing individualism had long been preparing the way for such a movement. Once the movement gained a strong foothold in Italy, it rapidly extended to other countries.

Decoration was the preëminent object of the Renaissance artisans. They were the first craftsmen in Europe in every phase of design. As builders with remarkable resourcefulness in construction, they excelled, but in embellishment by decoration in form and color, their art found its highest expression. Buildings, gardens, furniture, textiles, bronzes, sculpture, memorials, and every sort of ornament capable of receiving beauty of shape and adornment, were designed with a sense of artistic fitness, with a discriminating taste, with a refinement of detail and execution that have seldom been surpassed and rarely even approached.

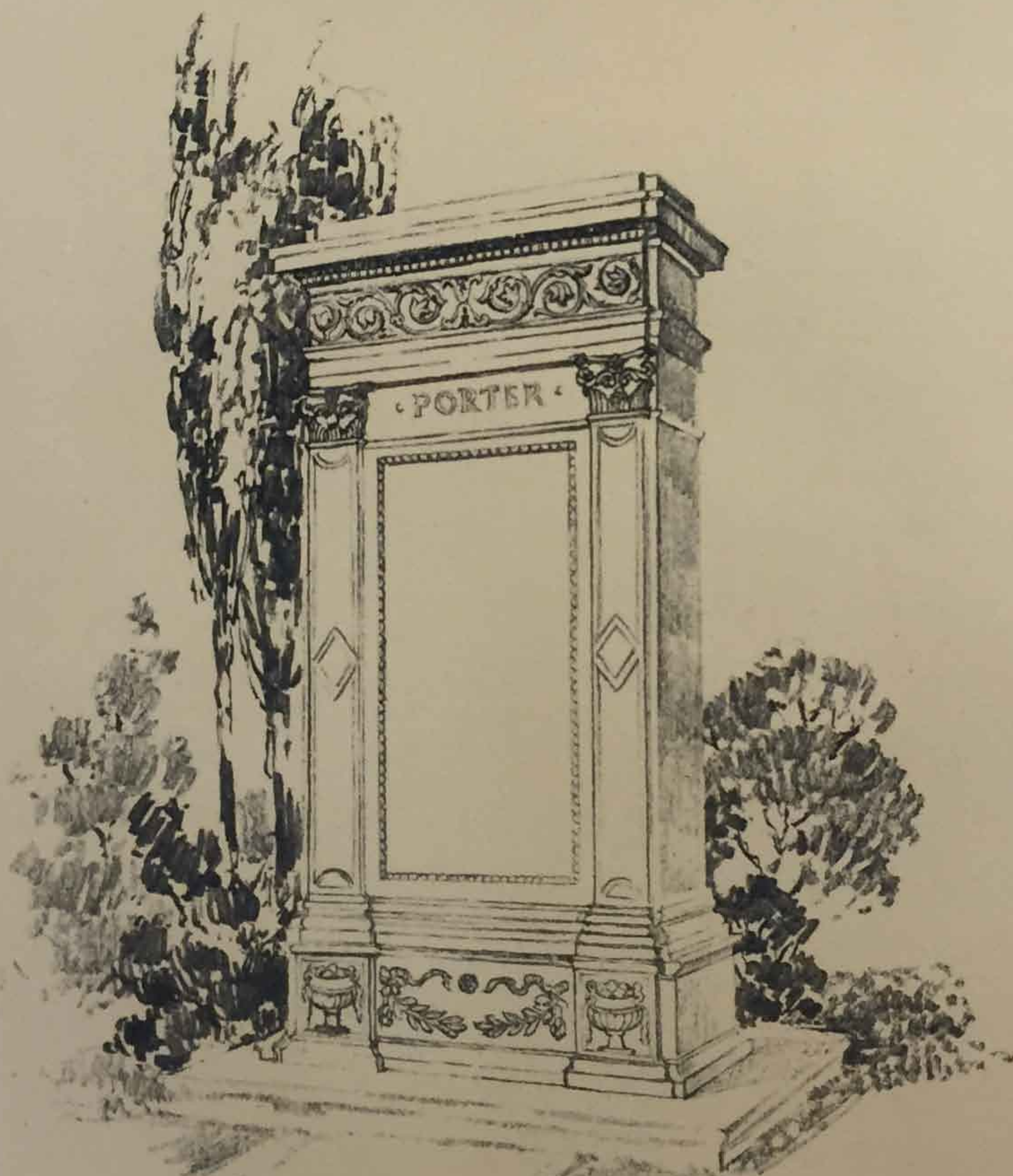
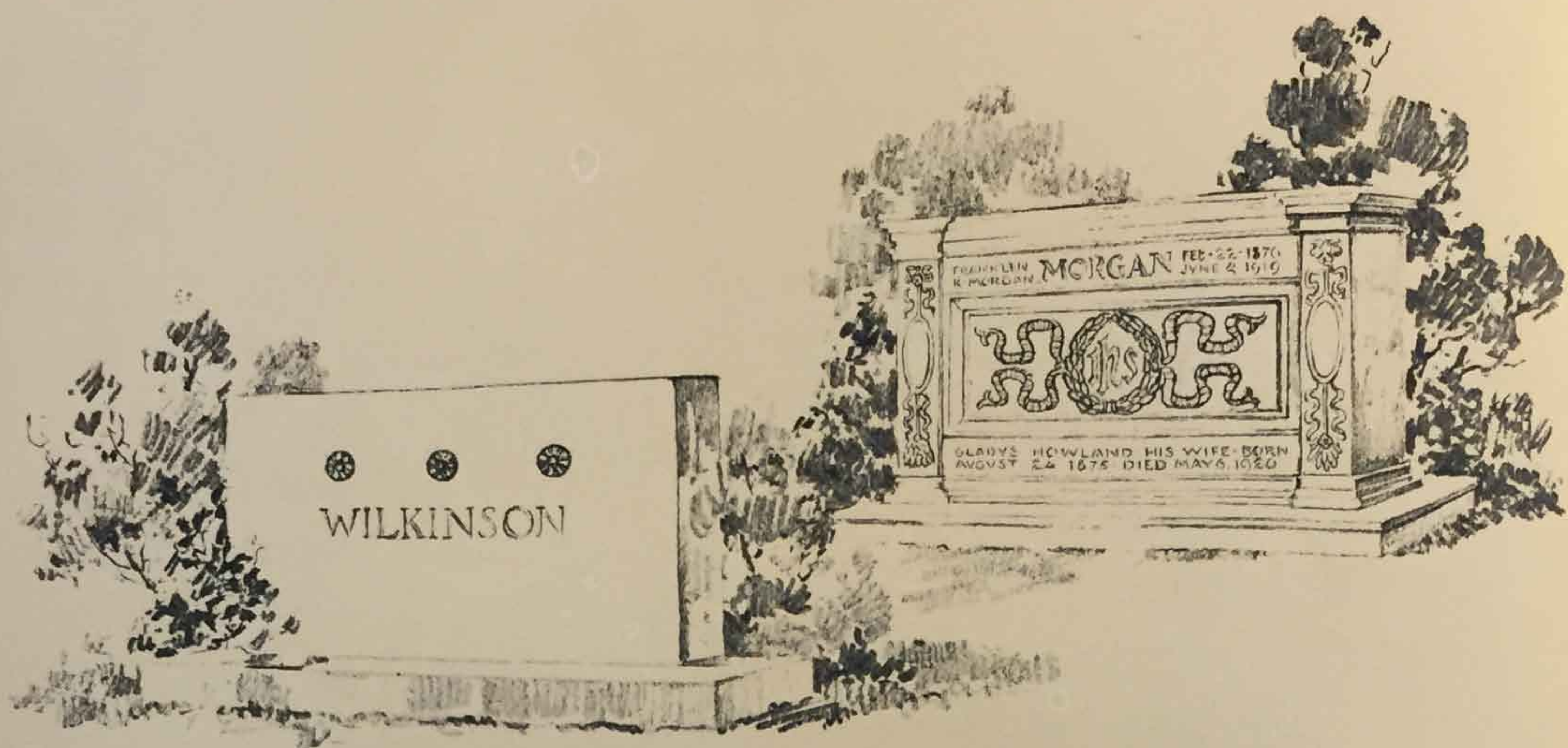
The careful study of natural forms afforded a new inspiration to designers. While there was no actual representation of plant forms, there was always a feeling of keen appreciation of the laws and forms of plant growth.

It is true that Roman decorative art was the foundation of the Renaissance, but never did artisans of the latter copy or imitate the older forms. The acanthus leaf, anthemion, rosette, rinceau, festoon and mouldings such as the egg and dart, water leaf and bead and reel, all can be traced from Rome to the Renaissance, where they are found transformed into new shapes.

The acanthus leaf (plate VI, drawings 3 and 6), the most adaptable of all foliage forms, was endlessly varied from the old Roman prototypes. The leaves became light, slender and very delicately modeled.

The arabesque, or carved ornament applied to panels and pilasters (drawings 25 and 27), is generally a combination of a central axis composed of vases, candelabrum forms and fanciful stalks with symmetrically diverging acanthus leaves, or with branching foliated scrolls to flank them on either side, all treated in a light graceful manner.

The rinceau, mentioned in the chapter on Roman ornament, is the



branching foliated scroll in which a continuous waving stem throws off, alternately on either side, spiral branches terminating in rosettes or bunches of leaves, each branching concealed by a wrapping of acanthus leaf. This is the most adaptable of all decorative patterns and can be traced from the vine motive of Greek art down through the Medieval and Renaissance periods. Drawing 21 and the upper part of drawing 27 are excellent examples of this design.

Drawings 1 and 9 are two variations of the anthemion which was essentially a frieze or band motive. The Renaissance artisans varied the design from close approximation of the Greek or Roman type to the elaborate forms indicated in drawings 1 and 9.

As before stated the rosette occurs in nearly all historic styles of ornament. The Renaissance rosette was so multiplied, and its forms were so varied and conventionalized, that it is difficult to identify any particular plant form as its source. Examples of the simple rosette are shown in drawings 22 and 24 and the more elaborate type in drawings 2 and 4.

The festoon, as already explained, is a Roman motive with bunches of flowers and fruit suspended between ox skulls and bound together with ribbons. In the Renaissance the festoon was supported from rosettes, the shoulders of infants or from buttons and ribbons (drawings 23 and 26).

Mouldings during this period were carved with the greatest elaboration as shown in the variations of the egg and dart (drawings 11, 12, 13), the bead and reel (drawings 15, 16, 17, 18), the water leaf (drawing 14), the carved anthemion (drawing 19) and the twisted or rope design (drawing 20).

Capitals for both columns and pilasters (drawings 5 and 7) were of composite types including a free modification of the Roman Corinthian. The column was less commonly used than the pilaster, which had capitals of great variety and beauty.

The shell was designed in many forms, two of which are seen in drawings 8 and 10.

The treatment of relief is handled with delicacy and charm. Certain details are carved in moderately high relief with rounded masses producing emphatic spots of light and shadow, while the subordinate elements of the

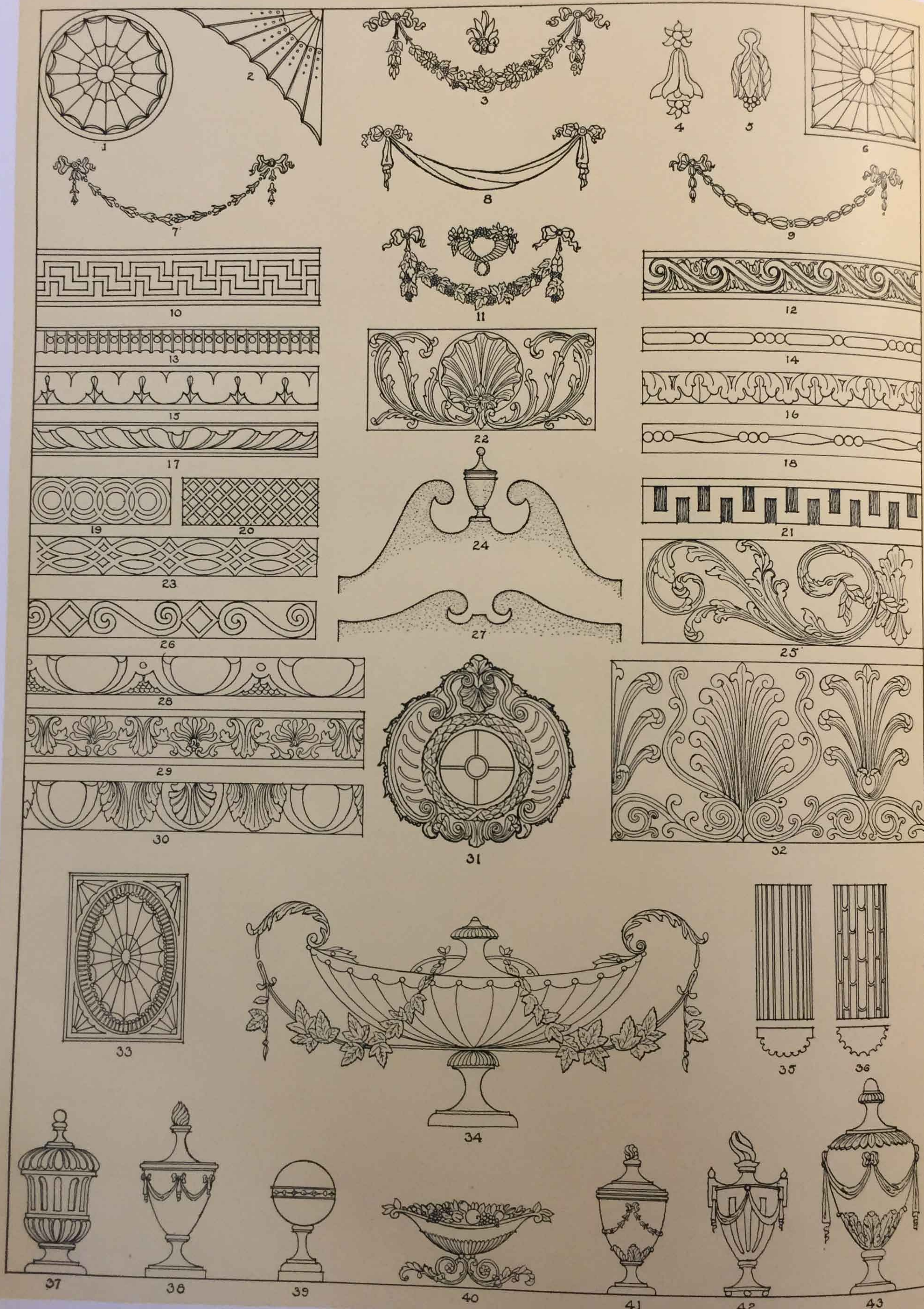
design are kept low, and the minor details almost melt away at the edges into the background. Surface ornament and low relief carving were used so extensively in the Renaissance that this period affords a rich field of practical material for the craftsman who is seeking sources of ornament adapted to modern conditions of production.

COLONIAL ORNAMENT



THE style of architecture and ornamentation which arose in the thirteen colonies of this country during the century preceding the Revolution is called Colonial. The Georgian period in England was its prototype and it was the Colonists' adoption of the Georgian motives which brought about this distinctive period in American art. Colonial architecture is sometimes called Georgian Colonial, but this description is incorrect. Georgian belonged to England, Colonial to this country, and both terms could not properly be applied to the same style although, during the transition, there was an inevitable intermingling of the two.

It is natural that the beginning of the colonies was distinguished by few notable productions of architecture or ornament. The first problem to face the colonists was the erection of buildings which met the most rudimentary necessities and it was not until about the year 1700 that population, commerce and wealth along the Atlantic coast had increased sufficiently to allow a certain elegance in domestic life and architecture. For a century or more the prevalent architectural forms and details were in wood. The builders were trained in English traditions of the Georgian period; they used English moulding profiles and worked from English pattern books or from instructions received in the "home country." The English details, designed chiefly for execution in stone, had to be interpreted in wood which, in America, was almost the universal material. Owing to this change in material there was a corresponding change in the character of the ornament. Mouldings became very refined and ornaments delicately carved, often in low relief. It is to the credit of these early builders that the proportions and simplicity of Georgian composition were not lost. In fact, they were so well executed that they are a constant source of inspiration to the architects of the present day.



During the later part of the eighteenth century when the brick Colonial of Maryland, Delaware and Virginia came into prominence, imitations of motives from the Adam style in England and the Louis XVI style in France gradually made themselves felt. The ornament around the window (plate VII, drawing 31) and the moulding from a door frame (drawing 17) show decided French influence. The fan-like or spider web ornament so common to the Adam style was used in squares (drawing 6), rectangles (drawing 33), triangles (drawing 2) and circles (drawing 1). Flutings were of many kinds, both the straight and interrupted as shown in drawing 36. Strap work (drawings 19, 20, 23 and 26) was one of the commonest bits of ornament. This resembles thin strips of sawed wood, worked in geometric patterns. It is found usually upon friezes and is used as a running ornament.

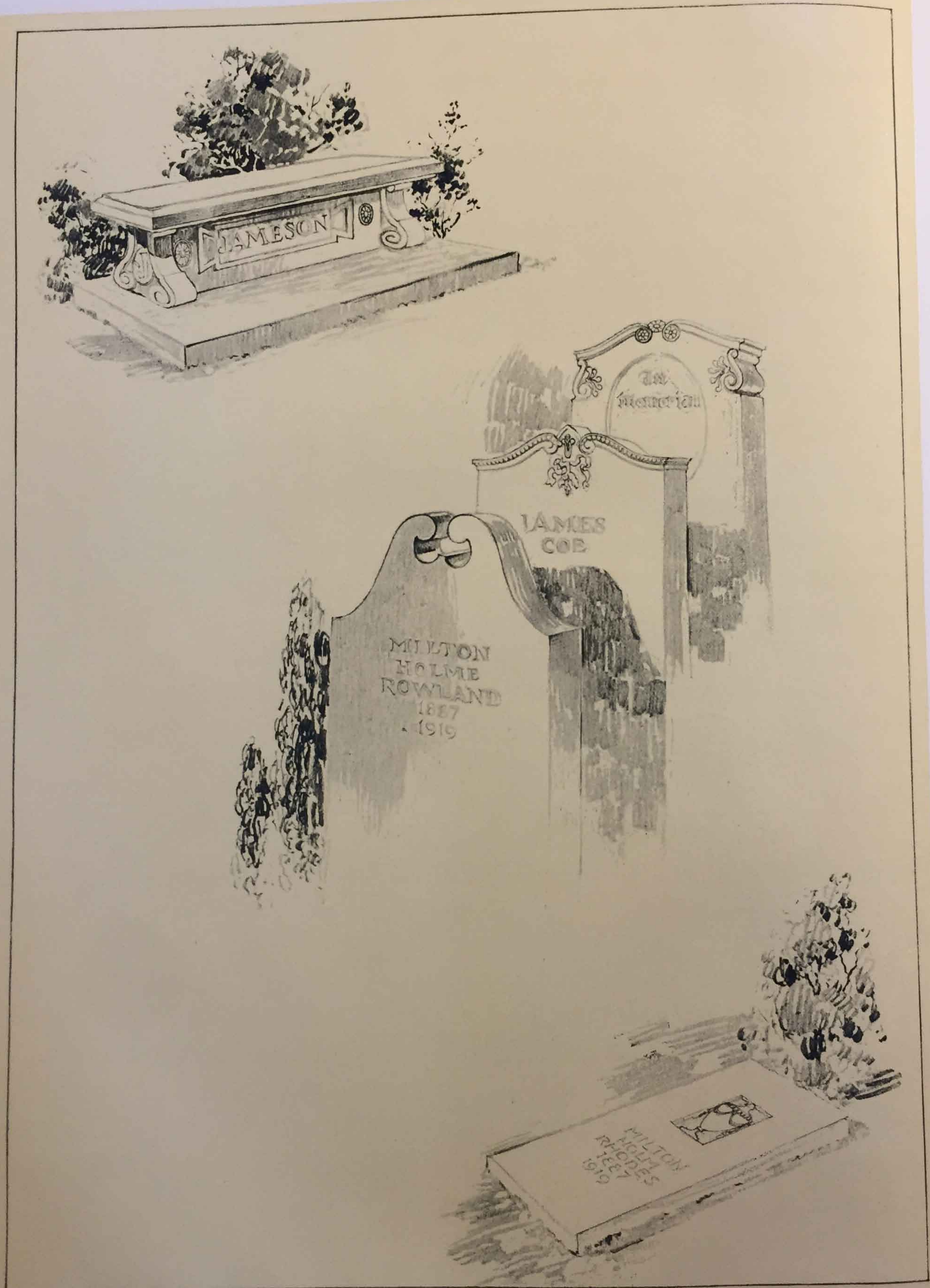
Reeding (drawing 35), which was similar in appearance to fluting, had a convex section and was usually applied to the face of pilasters and elliptical or circular columns.

The scroll or broken pediment was a special favorite among the Colonial craftsmen. It was used in many forms from the low scrolls (drawing 27) to the open, tall, slender forms (drawing 24). To emphasize the outline of a motive, a vase, acorn or pineapple was often applied to the center.

The festoon was treated with slenderness and grace. Its fruits and flowers were extremely naturalistic, its relief low, and carving fine and delicate. This motive was presented in great variety using the grape vine (drawing 11), the simple acanthus leaf (drawings 5 and 9), the bell shaped flower (drawings 4 and 7). The festoon composed of cloth supported at each end by buttons was designed especially in connection with the decoration of head stones, church pulpits and ecclesiastical furniture (drawing 8).

Urns both of the horizontal type (drawings 34 and 40) and the vertical type (drawings 37 to 39 and 41 to 43 inclusive) were one of the delights of the Colonial craftsmen. Gate posts, fence posts, mantels and friezes all were used for the application of this ornament.

The dentil, discussed in the chapter on Greek ornament, became very fantastic in its variations; drawing 21 shows a fret-like movement and



drawing 13 a dentil in a fluted section, the flutes of which contain balls to add a spot of shadow.

Beads and reels were counterparts of the Renaissance in their variations. Note the long pointed bead with three round reels (drawing 18) and the long cylindrical bead, three reels alternating with one reel (drawing 14).

The egg and dart is very distinctive in its emphasis of the egg flanked by a widely open shell. In place of the simple dart of the classic period, Colonial designers have seen fit to introduce various forms of the acanthus leaf (drawing 28) and often instead of a series of eggs this motive shows between each dart the acanthus leaf alternating with the egg (drawing 30).

The guilloche, which began with the Egyptians and the Greeks, was here used as a decoration, often on torus mouldings and as part of base boards and wainscot mouldings. The acanthus leaf, ever present in almost every period of ornament of Western Europe except the Celtic, was here varied and used in a charming way (drawing 25).

Anthemion motives occur frequently, modified by the Colonial wood carver from prototypes in stone. Drawing 32 is a direct derivative from the Greek anthemion (plate II, drawing 26). Careful attention is called to the charming form given the termination of the lobes of the anthemion noting how each has been rounded and flattened. The covering prickly acanthus shown in Greek work at the base of the anthemion has entirely disappeared and a simple S-curve has taken its place. The bud between the two anthemions has in the Colonial design been treated as a young leaf just bursting into full bloom. A very free, curious and interesting mingling of the French ornament with the Colonial is shown in drawing 29, wherein the anthemion motives are carved in a naturalistic style and joined together with a very fine flowing acanthus leaf after the Louis XVI manner.

On simple small moulds, which in the earlier periods held the water leaf, the acanthus was greatly conventionalized and simplified, the profile of the leaves being soft, round, broad and separated by the dart (drawing 15). The conventionalized rope pattern was another favorite for half round mouldings as shown in drawing 17.

The fret here occurs in a variety of forms, shaped to fit the size of the member to be decorated (drawing 10).

The Vitruvian scroll usually follows its original character in Greek and Roman ornament, although the example shown in drawing 12 is reversed in its movement.

Shells are found in only a few forms. They had few divisions or ribbing and were often used in direct connection with the acanthus leaf (drawing 22).

In conclusion, it is of interest briefly to trace back the historical connection of the styles which culminated in the Colonial. The latter, as already pointed out, was derived largely from the Georgian style in England and partly from the Louis XVI style in France. Both of these owed their origin to the great revival of interest during the seventeenth century in the old Roman works of art found in Italy. They also were strongly influenced by the Italian Renaissance. The Renaissance found its inspiration almost wholly in Roman architecture which had survived the Medieval Ages. Gothic art drew certain of its fundamental principles from the Roman, although in the course of its growth it departed radically from classic prototypes. Celtic must be regarded as practically isolated from the main sequence. Roman architecture came largely from Greece and the Greeks in turn received many motives from the Egyptians.

It is worthy of note that the lasting achievements in the field of design have come as a result of careful study of the best that had gone before and its adaptation to existing conditions. Efforts to disregard this principle have met with little success. If our memorial designing today is to stand the test of time, it must be based on the intelligent application of the best design which man has produced up to the present. It is hoped that this brief outline will serve to arouse interest in the memorial craftsman for further study of a subject so vital to his business.